

Appl. No.: 10/825,871  
Amdt. dated February 17, 2006  
Reply to Office Action of November 22, 2005

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. – 8. (Cancelled)

9. (Currently Amended): A method for providing a ~~continuous~~ continuously variable clean dry air (CDA) flow ~~of air~~ in a semiconductor processor for substrate processing, comprising the steps of:

sensing ~~selected temperature points of measurements~~ at selected points;

proportionally adjusting a continuously variable CDA flow based upon the sensed temperature measurements ~~maintaining an air flow proportional to a range of temperatures at selected temperature points~~; and

maintaining a predefined selected temperature inside a dome of the semiconductor processor during the time that the processor is processing substrates and when substrate processing is idle.

10. (Currently Amended): The method ~~for providing uniform temperature gradients in a semiconductor processor for substrate processing in~~ of Claim 9 further comprising the steps of: maintaining a supply of heat comprising the air continuously variable CDA flow at a the predefined temperature.

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11. (Currently Amended): The method ~~for providing uniform temperature gradients in a semiconductor processor for substrate processing in~~ of Claim 9 further comprising the steps of: utilizing a heat exchanger to regulate the amount of heat provided to a chamber surface of the semiconductor processor.

12. (Currently Amended): The method ~~for providing uniform temperature gradients in a semiconductor processor for substrate processing in~~ of Claim 9 further comprising the steps of: utilizing one or more temperature sensors and a CDA flow controller for ~~allowing~~ controlling upward and downward fluctuations ~~from in~~ the predefined temperature of a ~~the~~ dome of the semiconductor processor.

13. (Currently Amended): The method ~~for providing uniform temperature gradients in a semiconductor processor for substrate processing in~~ of Claim 9 further comprising the steps of: utilizing one or more temperature sensors and a CDA flow controller for ~~allowing~~ controlling upward and downward fluctuations in the heat provided to a ~~the~~ dome of the semiconductor processor.

14. (Currently Amended): The method ~~for providing heat to a semiconductor processor for substrate processing in~~ of Claim 9 further comprising the steps of: maintaining a supply of air comprising the continuously variable CDA air flow at a predefined quantity of heat provided to a the dome of the semiconductor processor.

15. (Currently Amended): A method for semiconductor processing, comprising the steps of:

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providing a domed process chamber having a support, a process gas distributor, and an exhaust; and

continuously varying ~~as a~~ a clean dry air (CDA) flow responsive to temperatures changes in the domed process chamber, such that a dome temperature is stabilized in accordance with a preset temperature during a semiconductor manufacturing process.

16. (Previously Presented): The method of Claim 15, further comprising:  
driving an antenna of a plasma reactor chamber by RF energy inductively coupled inside the domed process chamber.
17. (Previously Presented): The method of Claim 16, further comprising:  
generating a low energy plasma by the antenna for etching metals, dielectrics and semiconductor materials.
18. (Previously Presented): The method of Claim 16 further comprising:  
applying an auxiliary RF bias energy to a wafer support cathode to control a cathode sheath voltage and the ion energy independent of a plasma density in the plasma reactor chamber.
19. (Previously Presented): The method of Claim 15 further comprising:  
idling the semiconductor manufacturing process.